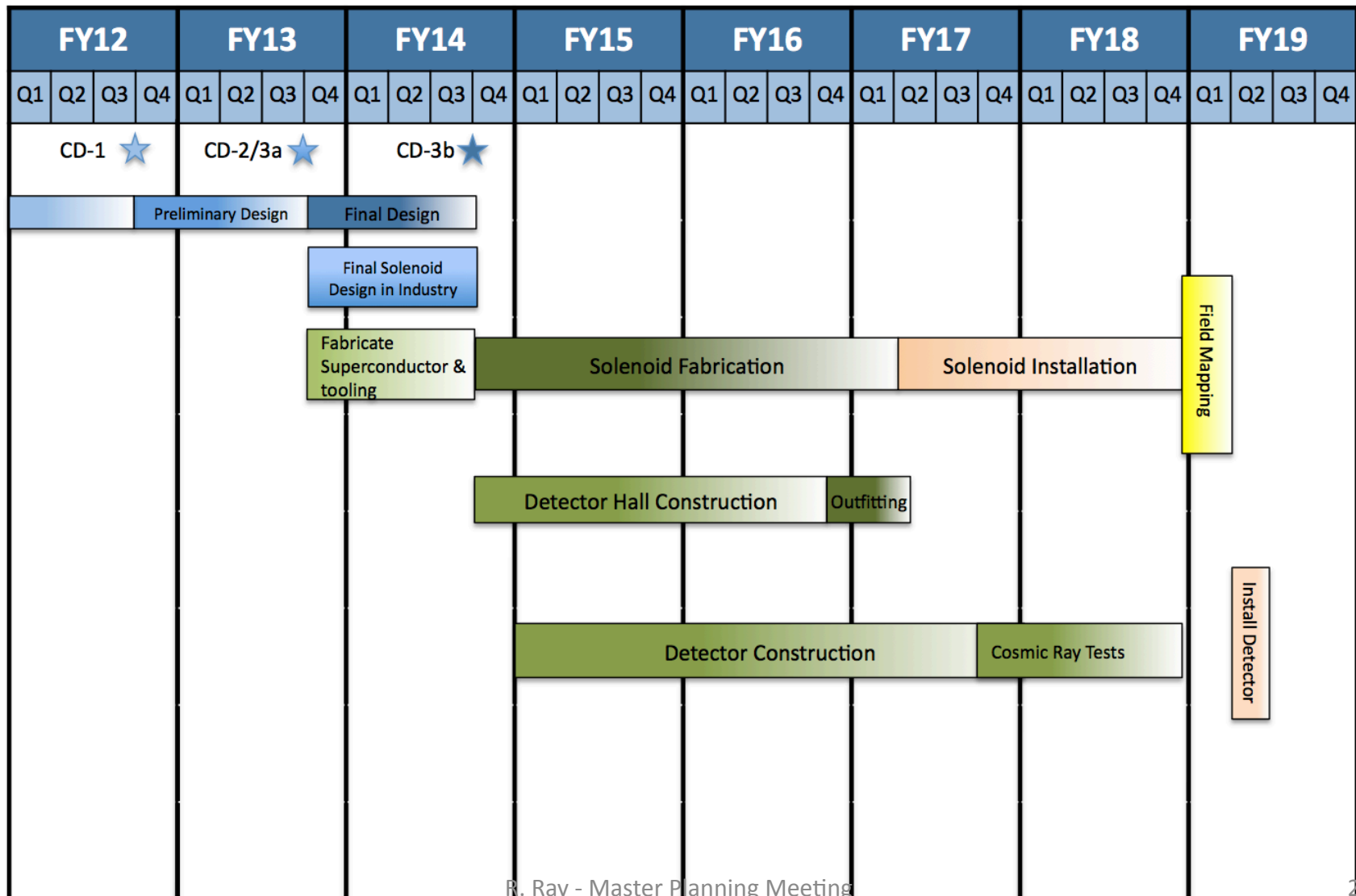


Mu2e Space Needs

R. Ray

11/9/11

Block Schedule



Offices - What we have now

- 11 offices on WH9E
 - Ray
 - Glenzinski
 - Knapp (Budget)
 - Leeb/Norbert (Project Controls)
 - Gaponenko
 - Onorato/Tassielli (INFN Fellows)
 - Bernstein
 - BU office (Miller, Khalatian)
 - Virginia (Group, Dukes, Oksuzian, Ralf)
 - Lancaster (International Fellow)
 - Visitors Office
 - Also have large contingents in AD and TD who would likely stay put in any scenario.
- 2 cubicles WH9X
 - Franklin (Project Controls)
 - Rice (Chandra, Corcoran)
- Several CD colleagues on 9W including
 - Kutschke
- At CDF
 - Mukherjee
 - Rusu
 - Piacentino (INFN Fellow)
 - Hahn

Offices – Cont.

- I would like to see Kurt Krempetz relocate to Project Office space.
- Mukherjee and Rusu should be integrated with Project Team eventually.
- Will eventually need more cubicle space for collaborators. Right now its only an issue during the summer.
- Polly and Casey also have offices on WH9E. Interactions with g-2 increasingly important.



Office Space - Summary

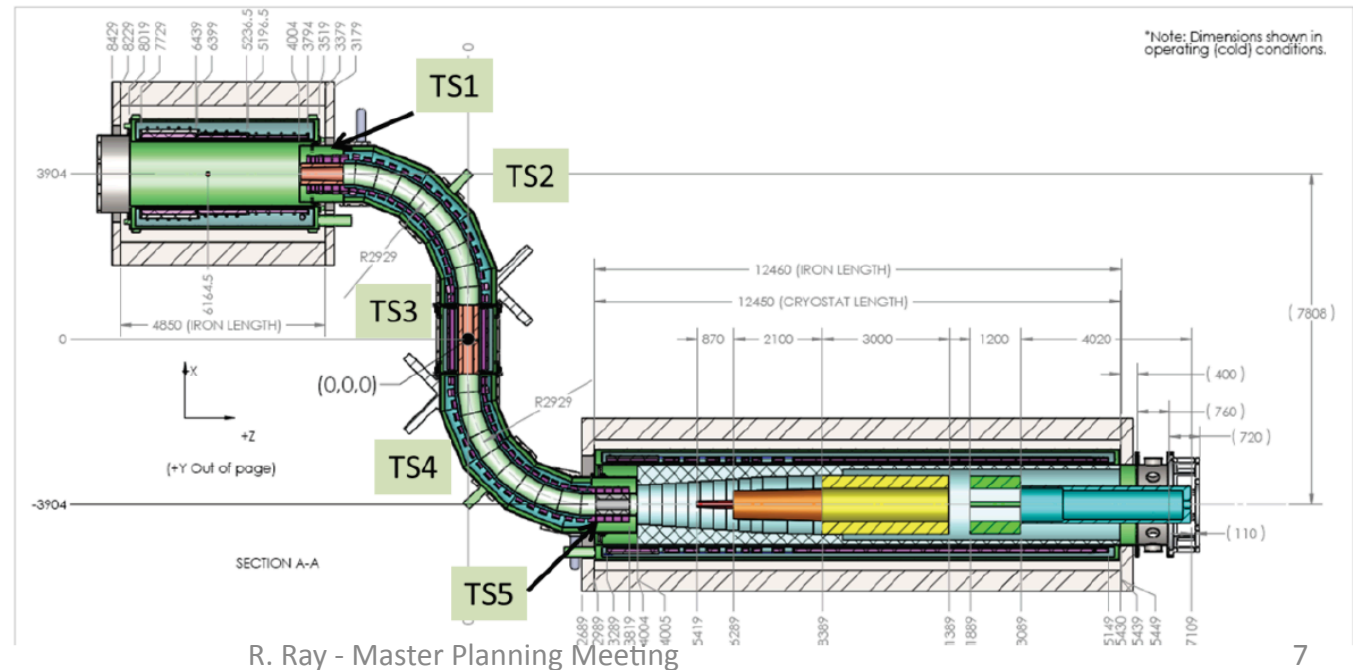
- Currently have 14 people occupying 11 offices and cubicles on 9th floor.
- Additional office for Virginia that is usually empty, but will be regularly occupied after December.
- Would eventually like 2 more offices. Along with visitors office this would provide space for Krempetz, Mukherjee and Rusu.
- Possibly another space for Hahn who splits her time with neutrinos and others.
- Proximity to g-2 important.

Lab Space – What we have now

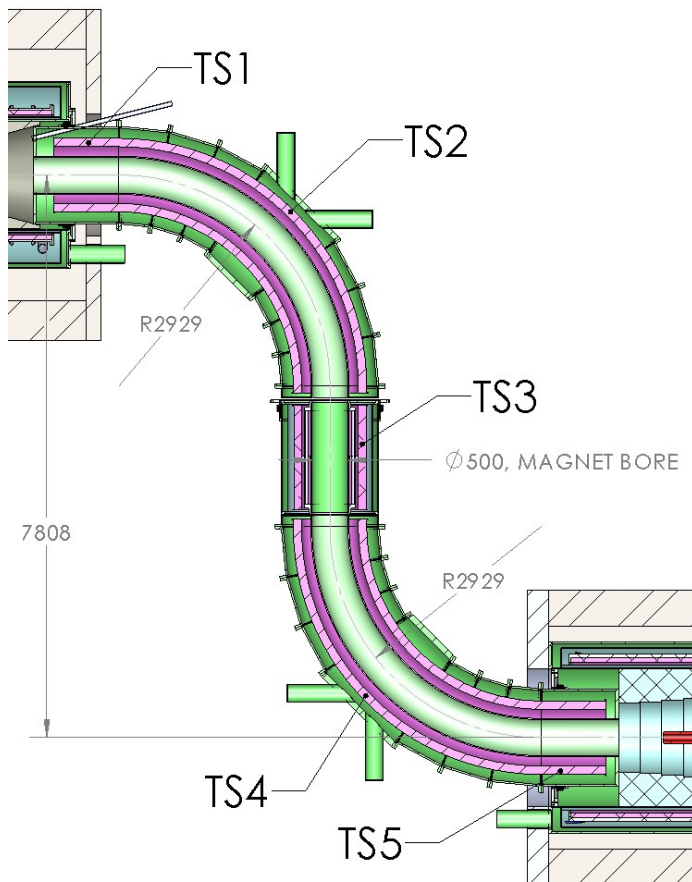
- Cosmic Ray veto prototype recently moved to Lab 6.
- Tracker prototype work being done at CDF and Lab 3.
- AC dipole tests being done in TD.

Solenoid R&D

- Need Industrial quality lab space for Solenoid R&D
 - Build test coil using aluminum stabilized cable from Japan and possibly Europe
 - Splice studies
 - TS prototype



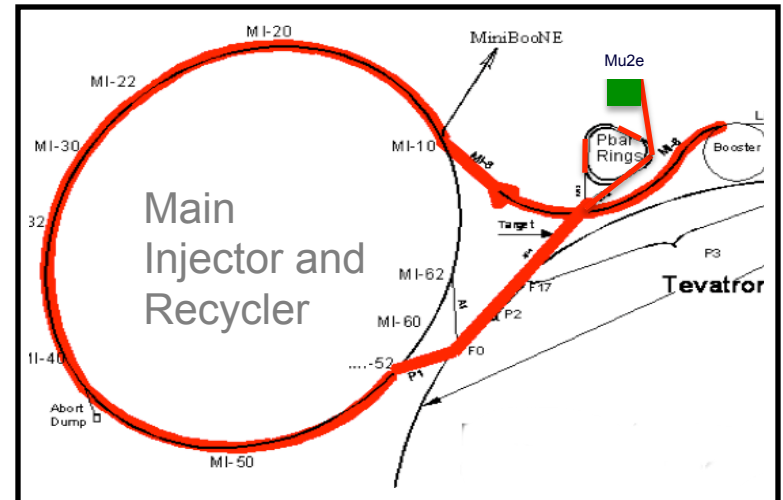
Transport Solenoid



- We intend to design and build the TS at Fermilab
- Build in 4 or 5 sections
- Procure most parts from industry
 - Coils
 - Cryostats
 - Etc.
- Need Industrial quality space (~10,000 sq. ft.) for several years (2015-2017) to test pieces and assemble.
 - Room temperature magnetic tests
- To perform cold tests of the TS we would need full use of ~ half of the IB1 test facility for about 3 - 6 months in 2017.
 - TS has very leaky field so we would have to rope off sections of the building.

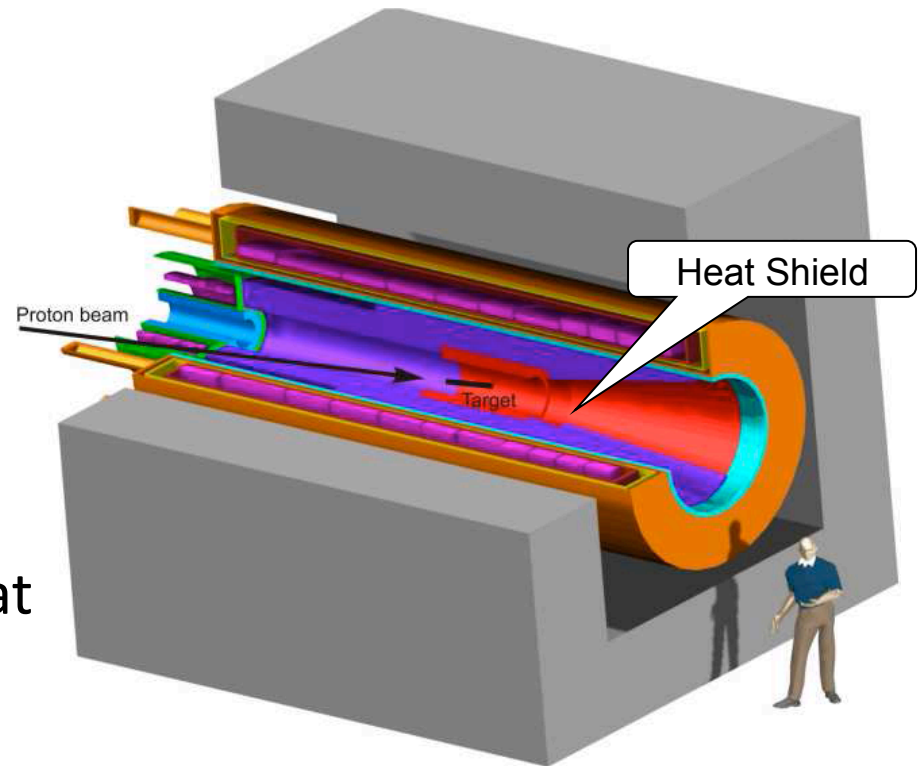
Accelerator

- Add RF systems to the Recycler and Debuncher Rings
 - Significant work done in industry
- Final welding done in house. For NOvA welding done in the AD Mechanical Support Dept area in the SE Annex high bay (~70' x 20'). We would need a similar space in **FY15-16**.
- Testing needs to be done in a RF cave because of x-rays.
 - NOvA using the TeV/MI RF test stand in F0 – **FY16**.
- AC Dipole for extinction system would have to be tested by TD.



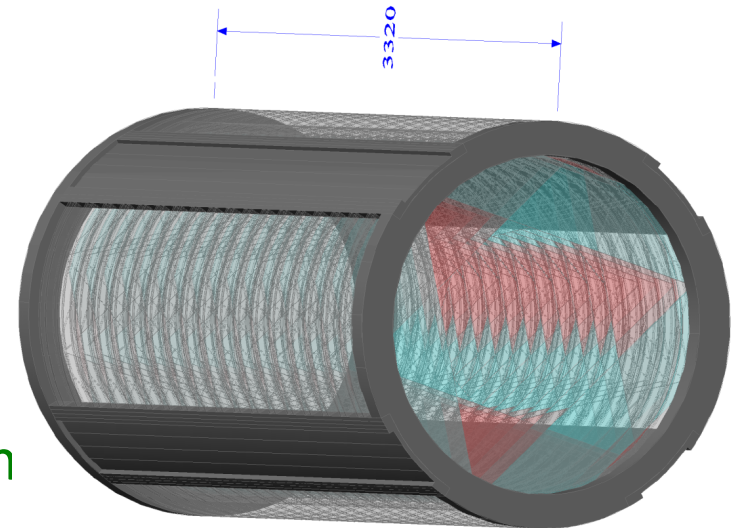
Heat Shield

- Heat shield is a 60 ton structure made from Bronze.
- Because solenoids are the critical path we will want to assemble the heat shield before the PS arrives.
- Could assemble in Mu2e hall, but might interfere with other work to prepare hall for solenoids and tie up 1 of 2 cranes.
- Would prefer to do this work at PAB, CDF, D0 or equivalent – 3 months in early FY17.



Tracker

- Tracker R&D currently ongoing at CDF and Lab 3.
 - Electronics development testing at CDF
 - Mechanical assembly/testing at Lab 3
 - Clean room, CMM and mechanical space outside of clean room.
- Current model for tracker construction
 - Straws and straw panels made at universities.
 - Panels assembled into final detector, electronics attached at Fermilab
 - Would need the entire Lab 3 clean room or equivalent for this – FY14 – 17.
 - Really need humidity control more than clean room, so some other space could work.



DAQ

- We will need some space for a test stand for the DAQ.
 - NOvA had a small room (~10' x 10') on the 3d floor of Feynman for this purpose. We would need something similar in FY15 – 17.
- Continued GRID support.
 - Currently using 500 slots with a modest duty factor. Adequate for next 2 years.

